



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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April 13, 2012

Ms. Susan Hedman
Regional Administrator
U.S. Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, IL 60604-3950

Dear Ms. Hedman:

Re: Indiana 120-Day Response to U.S. EPA's
Revised Designations for the 2008 8-Hour
Ozone National Ambient Air Quality Standard

This letter is in response to the United States Environmental Protection Agency's (U.S. EPA's) January 31, 2012, notification of revised air quality designations for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS) from those specified in U.S. EPA's December 9, 2011, letter to Governor Daniels. Indiana has carefully reviewed U.S. EPA's revised designations for Indiana under the 2008 8-hour ozone NAAQS. Indiana disagrees with U.S. EPA's recommendation that Jasper, Lake, and Porter counties be designated as nonattainment for the 2008 8-hour ozone NAAQS.

The counties at issue have no monitored violations themselves. Rather, the sole basis for U.S. EPA's recommendation that the above-mentioned counties be designated as nonattainment is a single monitored violation of the standard at the Zion, Illinois monitor. Indiana believes and is submitting modeling to demonstrate that this monitored violation is the result of the relaxation of requirements for the Northeast Illinois vehicle emissions testing (VET) program, and that meteorological and emissions data do not support the inclusion of the Indiana counties at issue as nonattainment. Indiana's modeling contradicts the less relevant data relied upon by U.S. EPA. Indiana is also submitting information demonstrating that U.S. EPA's recommendation that the counties at issue be designated as nonattainment is inconsistent with U.S. EPA's treatment of similarly-situated counties elsewhere in the country.

The attached technical support document (TSD) and appendices demonstrate, through the use of modeling and the designation factors identified by U.S. EPA, that Jasper, Lake, and Porter counties do not significantly contribute to the isolated monitor

violation in Zion, Illinois, and thus there is no basis for designating these counties as nonattainment for the 2008 8-hour ozone NAAQS.

First, emissions data and modeling do not support the inclusion of the counties at issue as nonattainment. Specifically, Indiana has conducted modeling that demonstrates that the monitored violation in Zion, Illinois is caused primarily by significant changes to the Northeast Illinois VET program, including the exemption of all vehicles from model years 1968 through 1995. As explained further in the TSD, IDEM evaluated whether the changes made to the Northeast Illinois VET program could have led to increased ozone concentrations, including the isolated violation at the Zion monitor. The results of IDEM's analysis indicate that the relaxation of state implementation plan (SIP)-based Northeast Illinois VET program requirements could, in fact, result in an increase of ozone concentrations in excess of 0.0004 parts per million. Absent the changes to the VET program, it is unlikely that there would be any monitored violations of the standard within the region. Additional analyses of the counties' respective share of nitrogen oxides (NO_x) and volatile organic compounds (VOC) emissions further support Indiana's position that these counties do not significantly contribute to the isolated violation in Zion, Illinois.¹

Second, the emissions and the meteorological modeling relied upon by U.S. EPA are dated and not relevant to the monitored violation U.S. EPA seeks to address. U.S. EPA has indicated its inclusion of the counties at issue is "based on the high emissions in these counties that contribute to high ozone concentrations at the Zion monitor". U.S. EPA further stated that "meteorology on high ozone days in the Chicago area favor transport of ozone and ozone precursor emissions from these counties to the Zion monitor". However, U.S. EPA failed to conduct its own modeling and meteorological analysis to support these conclusions, and relied instead on limited and outdated meteorological analyses from the States of Illinois and Wisconsin to determine Indiana's potential culpability. Emission volumes or mass are far less relevant than the geographic origin of the emissions and whether meteorology enables those emissions to contribute to ozone formation at a specific downwind location, as at the Zion, Illinois site. The analyses utilized by U.S. EPA are irrelevant to this matter because they do not evaluate data relevant to the 2009 through 2011 time period of the single monitored violation, nor are they specific to the lone violating site. Furthermore, U.S. EPA failed to conduct or reference a culpability analysis to support its conclusion. IDEM cannot provide a full critique of the meteorological analyses provided by Wisconsin and Illinois, because they have not been made available for our review. However as shown in the TSD, Indiana's own modeling, which properly accounts for the geographic, meteorological, and emission features of the counties at issue, indicates that these counties do not significantly contribute to the isolated monitored violation in Zion, Illinois.

Third, when compared with U.S. EPA's treatment of similarly situated counties, Jasper, Lake, and Porter counties' inclusion among nonattainment counties is in clear

¹ IDEM notes that the monitored violation in Zion, Illinois was certified prior to the requirement that states submit such data. IDEM believes this certification was performed with the sole purpose in preserving Congestion Mitigation and Air Quality (CMAQ) funding for the Chicago area.

error. IDEM's review of the materials available for proposed designations under the 2008 8-hour ozone NAAQS reveals widespread inconsistency in how U.S. EPA is handling counties within statistical area boundaries based on the contribution criteria. For example, in Indiana alone, U.S. EPA has proposed to designate an entire Indiana county (Jasper) as nonattainment with less technical support than it provided to narrow a nonattainment boundary for another Indiana county (Dearborn) to just a single township. As explained further in the TSD, the treatment of the Indiana counties at issue also differs greatly from similarly situated counties in metropolitan areas outside of Indiana. Specifically, U.S. EPA has proposed to designate Pickaway County, Ohio, Point Coupee Parish, Louisiana, and Roane County, Tennessee, as unclassifiable/attainment, despite the fact that the analyses of these counties under the contribution factors is nearly identical to the Indiana counties that U.S. EPA proposes to designate as nonattainment. IDEM also cites Lancaster and Berks counties in Pennsylvania as further evidence that U.S. EPA has applied the contribution guidance inconsistently. Due to the adverse consequences associated with a nonattainment designation, U.S. EPA should ensure absolute consistency in applying clearly defined criteria for designation purposes.

Monitoring data indicate that air quality throughout the State of Indiana meets the 2008 8-hour ozone NAAQS. Indiana firmly believes that nonattainment boundaries for the 2008 8-hour ozone NAAQS should be limited to the counties that actually possess a three-year average ambient monitor-based design value above the standard. However, even if some counties with no monitored violations are properly included as contributing to nonattainment in other counties, the counties at issue here are not properly included under U.S. EPA's contribution factors.

Indiana is in full compliance with its SIP and the emission control measures in place within Northwest Indiana represent one of the most stringent collections of SIP-based control strategies in the country. The wrongful inclusion of these counties will not result in any additional controls or emission reductions, or advance attainment of the standard for Illinois' portion of the area. It is unreasonable to punish Indiana, which is in full compliance with the air quality standard and its federally-approved SIP, for the negligence of a neighboring state.

Indiana continues to believe that U.S. EPA should issue designations based on sound science and not rely on arbitrary statistical area boundaries or incomplete and outdated data sets to substantiate this important and far-reaching policy matter. Therefore, Indiana urges U.S. EPA to carefully review the information presented herein, as well as federal and regional modeling of the impact of federal and state control measures prior to imposing undue economic hardships on Indiana counties that are simply adjacent to areas where data at a single monitor barely exceeds the revised standard.

I appreciate the opportunity to provide comments and recommendations to U.S. EPA concerning designations for the 2008 8-hour ozone NAAQS. Likewise, I look forward to working with your staff as U.S. EPA moves forward with the designation

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process. If you have any questions regarding IDEM's analysis and recommendations, please feel free to contact me at (317) 232-8611 or Keith Baugues, Assistant Commissioner, Office of Air Quality, at (317) 232-8222.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tom Easterly', with a long horizontal flourish extending to the right.

Thomas W. Easterly
Commissioner

Enclosures

- Enclosure 1—Indiana's Assessment of the Revised 2008 8-Hour Ozone National Ambient Air Quality Standard and Technical Support Documents
 - Appendix A—1990 Through 2010 Northwest Indiana Growth Rates and Patterns
 - Appendix B—2009 Northwest Indiana Commuting Patterns
 - Appendix C—2008 Nonattainment Area Emissions Inventory
 - Appendix D—Emission Reductions for Lake and Porter Counties Vehicle Emissions Testing
 - Appendix E—U.S. EPA Region 3, Region 4, Region 5, and Region 6 Technical Support Documents
 - Appendix F—Northwest Indiana Wind and Pollution Rose Analysis
- Enclosure 2—2000-2011 Indiana Ozone Monitoring Data Summary
- Enclosure 3—List of Indiana Counties with Final Ozone Designation Recommendations
- Enclosure 4—Map of Indiana Counties with Final Ozone Designation Recommendations

cc: Gina McCarthy, U.S. EPA Headquarters
Janet McCabe, U.S. EPA Headquarters
George Czerniak, U.S. EPA Region 5
John Mooney, U.S. EPA Region 5
Doug Aburano, U.S. EPA Region 5
Keith Baugues, IDEM-OAQ